FIG. 1

virus	potency of virus		
	pre-exam	treatment	control(non-treatment)
infectious bronchitis virus boated 42 strain (Coronaciridae)	$10^{8.5}$	$<10^{1.5}$	$10^{8.5}$
influenza type A virus(Aichi strain)	$10^{7.5}$	$10^{2.5}$	$10^{8.5}$
influenza type A virus(499 strain)	$10^{8.5}$	$10^{3.0}$	$10^{7.5}$
Newcastle disease virus	$10^{7.5}$	$10^{2.5}$	$10^{7.5}$

FIG. 2

No.	試料(サンプル)名	ingredient [chemical formula]	mean particle diameter (μm)	specific surface area (m^2/g)	remark
1	CaO	calcium oxide [CaO]	9.257	0.697	KISIDA CHEMICAL CO.,LTD. for chemical use(for test and/or research use) guaranteed
2	$Ca(OH)_2$	calcium hydroxide [$Ca(OH)_2$]	4.903	10.16	KISIDA CHEMICAL CO.,LTD. for chemical use(for test and/or research use) guaranteed
	$Ca(OH)_2$	calcium hydroxide [$Ca(OH)_2$]	5.382	9.42	WAKO PURE CHEMICALS INDUSTRIES, LTD. for chemical use(for test and/or research use) guaranteed
3	MgO	magnesium oxide [MgO]	2.498	37.13	WAKO PURE CHEMICALS INDUSTRIES, LTD. for chemical use(for test and/or research use) guaranteed
4	$Mg(OH)_2$	magnesium hydroxide [$Mg(OH)_2$]	4.000	13.90	WAKO PURE CHEMICALS INDUSTRIES, LTD. for chemical use(for test and/or research use) guaranteed
5	MgO(heavy)	magnesium oxide [MgO]	10.889	5.38	WAKO PURE CHEMICALS INDUSTRIES, LTD. for chemical use(for test and/or research use) guaranteed
6	MgO(heavy) − 10μm	magnesium oxide [MgO]	2.410	23.60	WAKO PURE CHEMICALS INDUSTRIES, LTD. for chemical use(for test and/or research use) guaranteed
7	hydrated lime	calcium hydroxide [$Ca(OH)_2$]	4.850	11.71	UEDA LIME CO.,LTD.
8	dolomite	dolomite [$MgCO_3 \cdot CaCO_3$]	19.746	0.919	UEDA LIME CO.,LTD.
9	Ca : Mg = 1 : 1	calcium hydroxide [$Ca(OH)_2$] magnesium oxide [$Mg(OH)_2$]	4.663	10.70	WAKO PURE CHEMICALS INDUSTRIES, LTD. mole ratio equibalent mixture
10	the agent according to the present invention		2.516	18.43	MOCHIGASE ELECTRICAL EQUIPMENT CO.,LTD. non-surface treatment mean particle diameter 2 5 μm
11	the agent according to the present invention		14.594	13.26	MOCHIGASE ELECTRICAL EQUIPMENT CO.,LTD. non-surface treatment mean particle diameter 2 5 μm

FIG. 3

No.	sample	final concentration (w%)	the number of days after preparation	pH value	rate of dilution							
					10^{-2}	10^{-3}	10^{-4}	10^{-5}	10^{-6}	10^{-7}	10^{-8}	10^{-9}
1	CaO	0.3	14	11.1	—	—	3/3	3/3	3/3	3/3	—	—
				11.4	—	—	—	3/3	3/3	3/3	—	—
2	$Ca(OH)_2$	0.3		12.2	—	3/3	2/3	1/3	0/2	0/3	0/3	—
			14	11.5	—	—	3/3	3/3	0/3	0/3	—	—
		0.17		12.0	—	—	3/3	2/3	0/3	—	—	—
3	MgO	0.3		10.0	—	—	—	—	3/3	3/3	3/3	—
4	$Mg(OH)_2$	0.3		8.8	—	—	—	—	3/3	3/3	2/3	—
5	MgO(heavy)	0.3		9.1	—	—	3/3	3/3	3/3	3/3	1/3	—
6	MgO(heavy)— 10 μm	0.3		9.7	—	—	3/3	3/3	3/3	3/3	1/3	—
7	hydrated lime	0.3		12.3	—	—	3/3	1/3	0/3	—	—	—
		0.17		11.5	—	—	—	3/3	2/2	0/3	—	—
8	dolomite	0.3		7.8	—	—	3/3	3/3	3/3	3/3	3/3	—
9	Ca : Mg = 1 : 1	0.3		12.1	—	3/3	3/3	2/2	0/3	0/3	0/3	—
			14	11.2	—	—	—	—	3/3	3/3	—	—
				11.8	—	—	—	—	3/3	2/3	0/3	—
10	the agent according to the present invention	0.3		12.0	—	3/3	3/3	0/3	0/3	0/3	0/3	—
				11.7	—	—	2/3	0/3	0/3	—	—	—
			14	11.7	—	—	—	3/3	3/3	—	—	—
				12.0	—	—	3/3	1/3	0/3	—	—	—
11	the agent according to the present invention	0.3		12.0	—	—	3/3	2/3	0/3	0/3	—	—
12	Control (PBS)	1/10 Concentration		8.0	—	—	—	—	—	3/3	1/3	0/3
				7.9	—	—	—	—	—	3/3	1/3	0/3
				7.8	—	—	—	—	—	3/3	1/3	0/3
13	supernatant liquid of sample No.10			8.9	—	3/3	3/3	3/3	0/3	0/3	0/3	—
14	titration				—	—	—	—	3/3	3/3	2/3	0/3

※ the result of infection=the number of eggs infected/ the number of eggs inoculated with a virus

FIG. 4

No.	sample	mean particle diameter (μm)	final concentration (w%)	the number of days after preparation	pH value	(EID_{50}/0.2ml) 10 min.
1	CaO	9.257	0.3	14	11.1	$10^{7.50}$ <
					11.4	$10^{7.50}$ <
2	$Ca(OH)_2$	5.382	0.3		12.2	$10^{4.50}$
				14	11.5	$10^{5.50}$
			0.17		12.0	$10^{5.25}$
3	MgO	2.498	0.3		10.0	$10^{8.50}$ <
4	$Mg(OH)_2$	4.000	0.3		8.8	$10^{8.24}$ <
5	MgO (heavy)	10.889	0.3		9.1	$10^{7.75}$
6	MgO (heavy) — 10 μm	2.410	0.3		9.7	$10^{7.75}$
7	hydrated lime	4.850	0.3		12.3	$10^{4.75}$
			0.17		11.5	$10^{6.50}$
8	dolomite	19.746	0.3		7.8	$10^{8.50}$ <
9	Ca : Mg = 1 : 1	4.663	0.3		12.1	$10^{5.50}$
				14	11.2	$10^{7.50}$ <
					11.8	$10^{6.25}$
10	the agent according to the present invention	2.516	0.3		12.0	$10^{4.50}$
					11.7	$10^{4.24}$
				14	11.7	$10^{6.50}$ <
					12.0	$10^{5.00}$
11	the agent according to the present invention	14.594	0.3		12.0	$10^{5.50}$
12	Control (PBS)		1/10 Concentration		8.0	$10^{7.76}$
					7.9	$10^{7.75}$
					7.8	$10^{7.75}$
13	supernatant liquid of sample No.10				8.9	$10^{8.00}$
14	titration :					$10^{8.24}$

FIG. 5

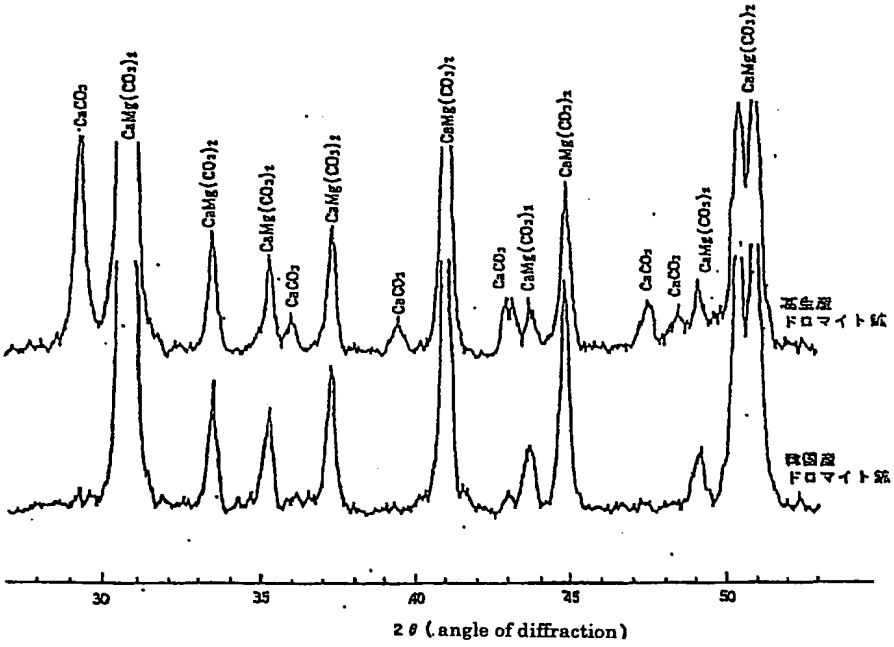
CaCO3
CaMg(CO3)2
CaMg(CO3)2
CaMg(CO3)2
CaCO3
CaMg(CO3)2
CaCO3
CaMg(CO3)2
CaCO3
CaMg(CO3)2
CaMg(CO3)2
CaCO3
CaCO3
CaMg(CO3)2
CaMg(CO3)2
高生産ドロマイト鉱
我国産ドロマイト鉱
30
35
40
45
50
2θ (angle of diffraction)

FIG. 6

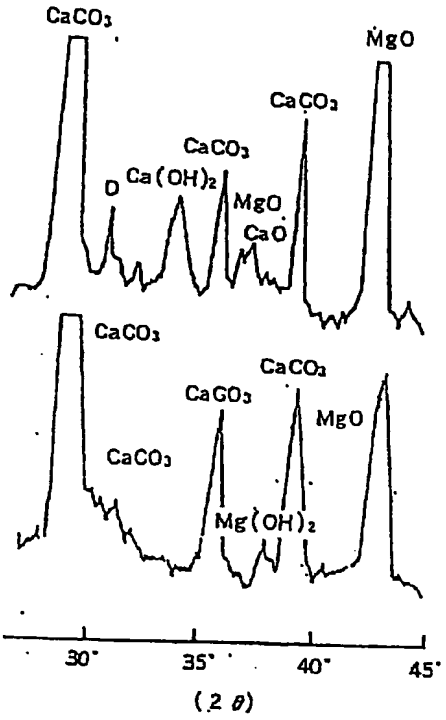
CaCO3
MgO
CaCO3
CaCO3
D
Ca(OH)2
MgO
CaO
CaCO3
CaCO3
CaCO3
MgO
CaCO3
Mg(OH)2
30°
35°
40°
45°
(2θ)

FIG. 7

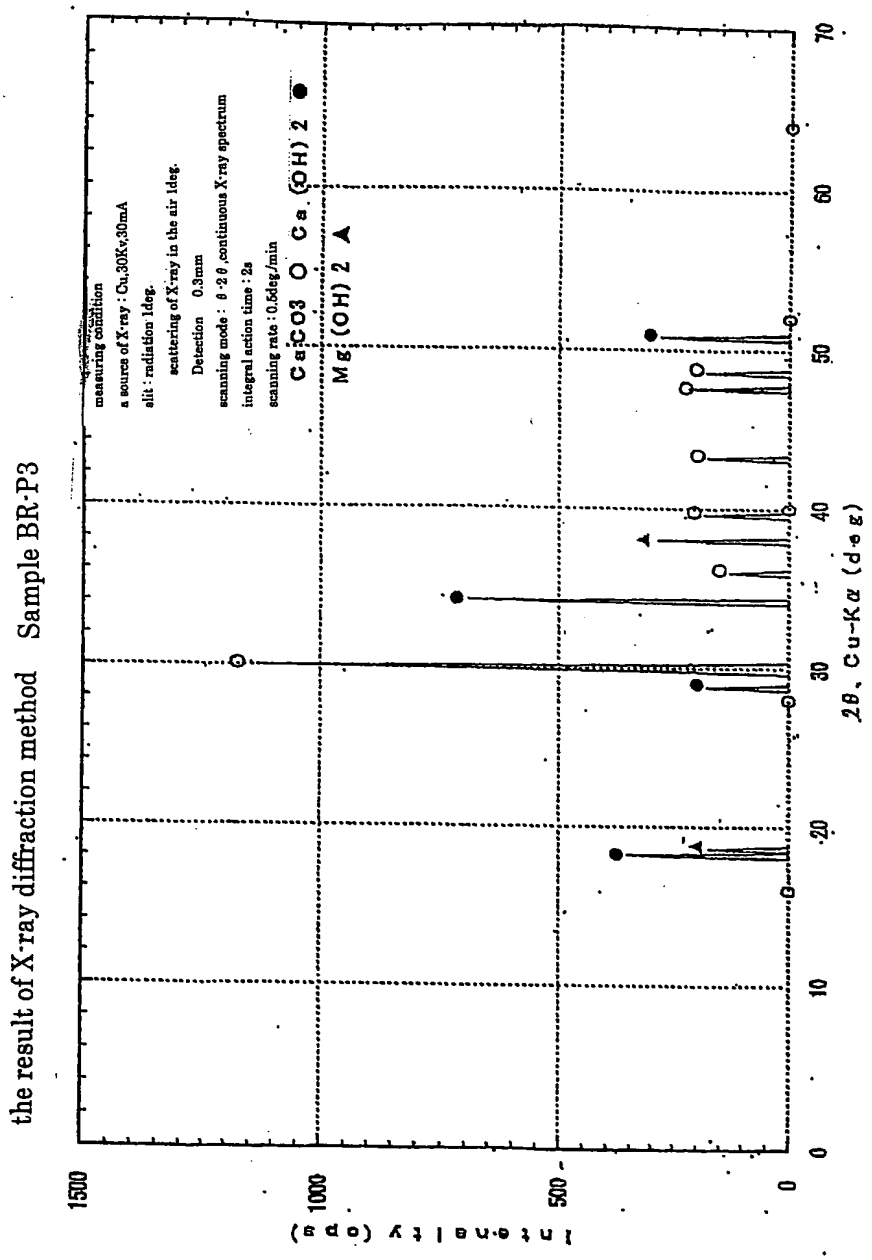
the result of X-ray diffraction method Sample BR-P3
measuring condition
a source of X-ray : Cu,30Kv,30mA
slit : radiation 1deg.
scattering of X-ray in the air 1deg.
Detection 0.3mm
scanning mode : θ-2θ continuous X-ray spectrum
integral action time : 2s
scanning rate : 0.5deg/min
CaCO3 ○ Ca(OH)2 ●
Mg(OH)2 ▲
Intensity (cps)
1500
1000
500
0
0
10
20
30
40
50
60
70
2θ, Cu-Kα (deg)

FIG. 8

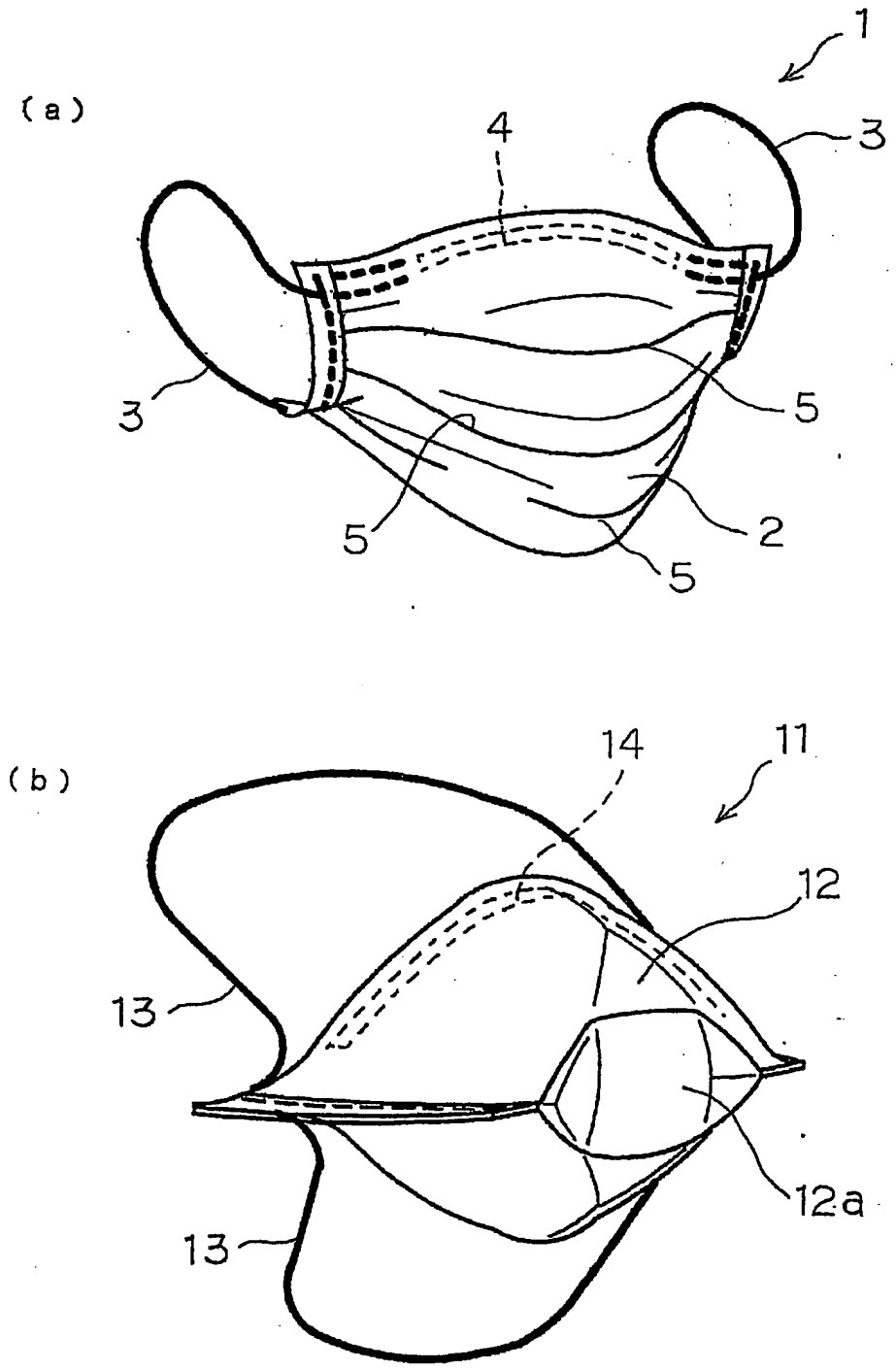

FIG. 9